

CLAIMS

What Is Claimed Is:

1 1. A printer cartridge comprising a series of magnetic elements selected to  
2 counterbalance a series of magnetic element on a printer, and each positioned to lie adjacent to a  
3 corresponding magnetic field detecting switch on the printer, where the position of the magnetic  
4 elements on the cartridge are located so as to change a condition of the corresponding magnetic field  
5 detecting switch when the cartridge is inserted into the printer.

1 2. The printer cartridge of claim 1 wherein the magnetic field detecting switch  
2 comprises a reed switch.

1 3. The printer cartridge of claim 1 wherein each magnetic field detecting switch  
2 comprises an element of a cartridge identification code.

1 4. A printer cartridge identification system comprising:  
2 a printer cartridge including a plurality of magnetic elements disposed adjacent a  
3 plurality of magnetic field detecting switches located on a printer; and  
4 a printer including a plurality of magnetic field detecting switches corresponding to  
5 the plurality of magnetic elements on the printer cartridge, the magnetic field detecting switches  
6 cooperating to define a printer cartridge identification code.

1 5. The printer cartridge identification system of claim 4 wherein the magnetic field  
2 detecting switches comprise reed switches.

1 6. The printer cartridge identification system of claim 4 further comprising a fixed  
2 magnet adjacent on the printer adjacent the magnetic field detecting switch for biasing the magnetic  
3 field detecting switch in a first position.

1 7. The printer cartridge identification system of claim 6 wherein the magnetic elements  
2 on the printer cartridge are of a size and strength to counterbalance the fixed magnets on the printer  
3 when the cartridge is located in the printer.

1 8. A printer cartridge identifying printer comprising:  
2 a magnetic field detecting switch located adjacent a printer cartridge port and  
3 adapted to switch from a first position to a second position when a magnet on the printer cartridge is  
4 brought in proximity with the magnetic field detecting switch; and  
5 circuitry on the printer for evaluating the position of the magnetic field detecting  
6 switch and determining whether the cartridge in the printer is of a specific type.

7 9. The printer of claim 8 further comprising a fixed magnetic element adjacent the  
8 magnetic field detecting switch to bias the magnetic field detecting switch in a predetermined  
9 position.

1 10. The printer of Claim 8 wherein the magnetic field detecting switch is a reed switch.

2 11. A method for identifying a printer cartridge comprising the steps of:  
3 locating on the printer cartridge a plurality of magnetic elements;  
4 locating on the printer a set of magnetic field detecting switches in proximity with  
5 the magnetic elements on the printer cartridge;  
6 providing the printer with circuitry to evaluate the position of the magnetic field  
7 detecting switches, and identifying a printer based on the position of the  
8 magnetic field detecting switches.